

## WHAT IS AN ENVIRONMENTAL MANAGEMENT SYSTEM OR EMS?

Formal Environmental Management Systems (EMS) emerged in the early 1990s to provide organizations with a proactive, systematic approach for managing the potential environmental consequences of their operations. Such systems have been widely adopted by industry and Government and have been effective at improving an organization's regulatory compliance and environmental performance.

### EMS Background

Although several recognized EMS frameworks exist, most are based on the International Organization for Standardization's ISO-14001 EMS standard. ISO-14001 is the framework on which organizations most frequently choose to base their EMS, and this is proving to be the case with U.S. federal facilities. AEE-200 basis its EMS on the principles of ISO 14001 incorporating concepts from Health and Safety Systems. All EMS are based on a cycle of four steps described below.

#### Phase 1: Planning

The organization identifies how its operations might harm the environment, and develops methods to reduce this harm.

#### Phase 2: Doing

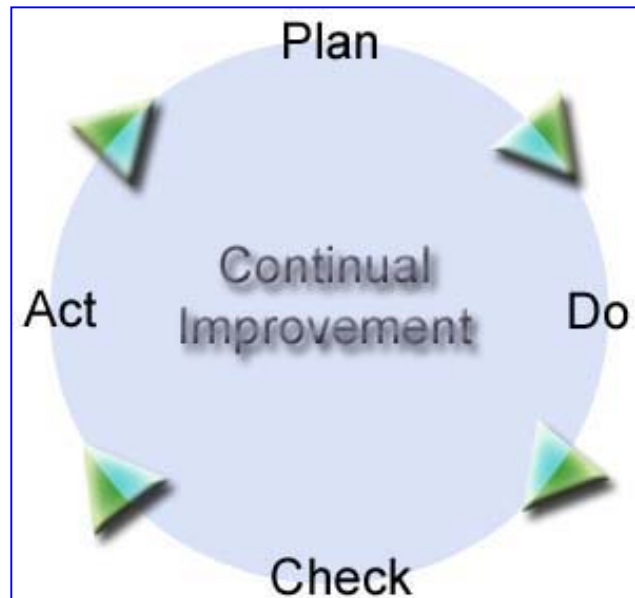
The organization implements these methods to reduce harm and operates them for a designated time period.

#### Phase 3: Checking

The organization assesses whether the methods that it is operating to reduce environmental harm and ensure regulatory compliance are proving to be effective.

#### Phase 4: Acting

The organization determines what changes are necessary based on the performance assessment of the methods (see Phase 3) designed to reduce environmental harm.



**A more detailed description of the key elements that make up an ISO 14000 based environmental management system can be found in the EMS Key Elements.**

The findings of Phase 4 may indicate that adjustments to methods already in place are necessary or that entirely new methods are needed to achieve established environmental objectives. Output from this phase is fed back into Phase 1 Planning, to make necessary changes and additions designed to bring the EMS to the desired level of effectiveness. This system feedback propels the continual improvement of the EMS.

The EMS continually moves through this cycle, fine-tuning its management of those areas of the organization's operations that harm the environment. This "continual improvement cycle" is a core tenet of the EMS; it allows the system to adapt to the dynamic nature of the organization's operations.